

Before the  
**FEDERAL COMMUNICATION COMMISSION**  
Washington, D.C. 20554

ORIGINAL

RECEIVED

OCT 13 1995

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of:

Establishment of Rules and Policies for the  
Digital Audio Radio Satellite Service in the  
2310-2360 MHz Frequency Band

IB Docket No. 95-91  
GEN Docket No. 90-357  
RM No. 8610

DOCKET FILE COPY ORIGINAL

## Reply Comments of CD Radio

### CD Radio Inc.

Peter K. Pitsch  
Pitsch Communications  
2300 N Street, N.W., Suite 600  
Washington, D.C. 20037  
(202) 663-9039

Of Counsel

Richard E. Wiley  
Michael Yourshaw  
Carl R. Frank  
Edward A. Yorkgitis, Jr.  
Michael K. Baker

of

WILEY, REIN & FIELDING  
1776 K Street, N.W.  
Washington, D.C. 20006  
(202) 429-7000

Its Attorneys

Dated: October 13, 1995

No. of Copies rec'd  
List ABCDE

015

## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION .....	1
II. THE COMMISSION SHOULD NOT COUNTENANCE NAB'S ATTEMPT TO MISCHARACTERIZE AND DISTORT THE NEGGLIGIBLE EFFECT OF NATIONWIDE SATELLITE DARS ON CONVENTIONAL RADIO .....	7
A. The FCC Should Reject NAB's Unconvincing Effort to Discredit the Plain Public Interest Benefits of Satellite DARS .....	7
1. The Benefit of Enhanced Service to Rural Areas .....	8
2. The Benefit of Increased Diversity in Programming .....	10
3. The Benefit of Providing Specialized Niche Programming to National Audiences .....	12
4. The Benefit of Stimulating Significant Economic Growth and Creating High-Skilled Jobs .....	16
5. The Benefit of Reinvigorated Competition in Radio Broadcasting .....	18
B. Contrary to the Claims of Broadcasters, Satellite DARS Will Not Harm Traditional Broadcasting .....	18
1. Radio Today Is Healthier than Ever .....	19
2. NAB's Studies Are Flawed .....	24
III. THE COMMISSION SHOULD REJECT THE BAND PLAN PROPOSALS OF NAB AND CRACKER AS UNSUPPORTED AND AT ODDS WITH THE SUCCESS OF SATELLITE DARS .....	35
A. NAB's Band Plans Would Fail to Support Viable Satellite DARS Systems .....	37

B.	Cracker's Ambiguous Regional Beam Plan Would Diminish Diversity and Competition and Adversely Affect Local Broadcasters . . . . .	39
IV.	THE FEW COMMENTERS ADVOCATING RE-OPENING OF THE CUT-OFF UTTERLY HAVE FAILED TO JUSTIFY SUCH UNLAWFUL ACTION . . . . .	43
V.	THERE IS NO RECORD EVIDENCE IN SUPPORT OF DISTRIBUTING THE ALLOCATED SPECTRUM THROUGH COMPETITIVE BIDDING . . . . .	51
VI.	THE RECORD SUPPORTS FCC ADOPTION OF TECHNICAL RULES THAT ALLOW SATELLITE DARS LICENSEES MAXIMUM FLEXIBILITY TO BETTER SERVE THE PUBLIC . . . . .	54
VII.	IN THE EVENT THE FCC AUCTIONS THE 2310-2360 MHz BAND, THE COMMISSION SHOULD AWARD CD RADIO A PIONEER'S PREFERENCE FOR CREATING THE SERVICE AND GENERATING VALUE FOR THE SPECTRUM . . . . .	57
VIII.	CONCLUSION . . . . .	63

- APPENDIX A      *Impact of CD Radio & Other SDARS Systems on Traditional Radio Service*, Statement of John L. Peterman, Principal, Law & Economics Consulting Group, Inc.
- APPENDIX B      *Supplement To Pioneer's Preference Request*, Satellite CD Radio, Inc. Request for a Pioneer's Preference for Proposed Satellite Digital Audio Radio System, General Docket No. 90-357; PP-24 (filed June 2, 1993).
- APPENDIX C      *Supplement To Pioneer's Preference Request*, Satellite CD Radio, Inc. Request for a Pioneer's Preference for Proposed Satellite Digital Audio Radio System, General Docket No. 90-357; PP-24 (filed September 20, 1995)

## SUMMARY

The comments filed in response to the Commission's *Notice of Proposed Rulemaking* argue persuasively that satellite DARS should be authorized immediately and licenses should be issued to the four applicants that satisfied the 1992 filing requirements. Supporters of the immediate deployment of satellite DARS include a long list of educational, religious, ethnic and other public interest groups, along with a broad range of high-technology companies and several terrestrial broadcast station owners and programmers.

Opponents of satellite DARS fall into two categories. The National Association of Broadcasters ("NAB") and some of its rank and file argue for unneeded government protection for its lucrative exploitation of the airwaves. Additionally, a single commenter calls for reopening of the application period so that it can "free ride" on the efforts and investments of the current applicants. The Commission should ignore these repetitive, thinly veiled attempts to profit at the public's expense. The Commission has determined to promote competition, not to prevent it, and its duty is to further the public interest rather than private profits.

The objections of NAB should be discarded because they start from numerous erroneous premises. First, NAB is wrong in claiming that the public does not want, or need, increased choice in the selection and quality of the audio programming available. The Commission acknowledged the public benefit of increased programming diversity in its *NPRM*. Second, NAB is incorrect in claiming that terrestrial radio is an ailing industry that

will suffer devastating harm if satellite DARS is authorized. NAB's protestations of poverty are belied by the recent praises of its own industry analysts. Additionally, NAB's warnings of devastation at the hands of satellite radio contradict every valid, scientific study that has been produced. Third, NAB's syllogism of alleged dire consequences on local stations due to satellite DARS is fanciful, unsupported and should be disregarded.

The arguments of Cracker Barrel Old Country Store, Inc. ("Cracker"), a restaurant chain, should also be discarded. Cracker attempts to put opportunism ahead of the public interest by seeking to stall satellite DARS' deployment still further so that it can catch up on an industry that it is ill prepared to enter. Cracker's lack of familiarity with the industry and the technology is evidenced by its wholly specious theory that multiple additional licensees can be squeezed into the available spectrum. This is not so.

Instead, the Commission should dismiss the arguments of detractors and respect the equitable interests cited in the *NPRM* as favoring the current four applicants. Those same equitable interests would be undermined should the agency determine to auction licenses or re-open the cut-off or both. Auctions would be inappropriate because they would create substantial delay in the deployment of satellite DARS and, in any case, cannot legally be implemented given the lack of mutual exclusivity between the license applicants. Reopening the cut-off would be contrary to 50 years of Commission precedent, and would diminish entrepreneurial incentives in DARS and other future services.

The Commission should also avoid creating an unnecessary and restrictive set of technical rules and regulatory requirements for satellite DARS. Technical rules are unnecessary because the current license applicants have incentive to create technical

compatibility with regard to consumer products, which they have already agreed to in their joint comments.

Finally, although CD Radio believes auctions would be inappropriate here, should the agency determine to auction S-band spectrum, it must recognize the preexisting equities of CD Radio, whose application has been on file more than five years. As a minimum, the Commission should award a preference to the entity that pioneered the service -- CD Radio.

\* \* \*

It has been five and a half years since CD Radio first filed an application to provide CD-quality audio programming to the public. In the years that have followed, CD Radio has spent more than \$15 million trying to make satellite DARS a reality. CD Radio has engaged in technical development and tests, international negotiations to designate spectrum, regulatory proceedings to authorize the spectrum, and extensive consumer research to determine satellite DARS' most beneficial uses. To recognize both these equities and the public interest, the Commission should immediately authorize satellite DARS and license the four current applicants.

Before the  
**FEDERAL COMMUNICATION COMMISSION**  
Washington, D.C. 20554

**RECEIVED**  
**OCT 13 1995**  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of:

Establishment of Rules and Policies for the  
Digital Audio Radio Satellite Service in the  
2310-2360 MHz Frequency Band

IB Docket No. 95-91  
GEN Docket No. 90-357  
RM No. 8610

## **Reply Comments of CD Radio**

CD Radio Inc. ("CD Radio"), by its attorneys and pursuant to the above-captioned *Notice of Proposed Rulemaking (NPRM)*,<sup>1</sup> hereby replies to the comments on the Commission's proposed licensing policies and rules for the satellite digital audio radio service ("DARS").

### **I. INTRODUCTION**

For half a decade, the public has waited with anticipation for satellite-delivered DARS. Since CD Radio first proposed the idea more than five years ago, consumers have been forced to wait while a terrestrial radio trade association has fought to prevent the Commission from approving this innovative service.

CD Radio has been in the forefront of the struggle to make satellite DARS a reality. Since filing the first satellite DARS application in 1990, CD Radio has found an appropriate spectrum allocation, engaged in domestic and international negotiations to set aside that

---

<sup>1</sup> FCC 95-229 (June 15, 1995).



spectrum for the service, conducted significant technical research, served on international and U.S. organizations testing and evaluating terrestrial and satellite DARS, canvassed community and special interest organizations to determine the most beneficial applications of satellite DARS, and single-handedly blazed the regulatory trail in Washington.<sup>2</sup>

The five-year battle has already cost CD Radio stockholders \$15 million and has increased construction costs by more than 20 million.<sup>3</sup> But the delay caused by terrestrial broadcasters has not only been expensive for CD Radio, it also has been costly for the public. Consumers envision a wealth of valuable applications for satellite DARS.<sup>4</sup> Aside from the nationwide provision of CD quality music, people want to receive educational programming,<sup>5</sup> news,<sup>6</sup> religious messages,<sup>7</sup> ethnic<sup>8</sup> and cultural presentations,<sup>9</sup> emergency

---

<sup>2</sup> See, e.g., New DAB System Would Beam 500 Channels, *Broadcasting & Cable* at 33 (Dec. 21, 1992) ("Against strong opposition from broadcasters, Satellite CD Radio has waged a two-year campaign to convince the FCC to allow it to begin a satellite-delivered digital audio broadcasting (DAB) service.").

<sup>3</sup> In narrowing the field of satellite DARS applicants to four (an action that CD Radio undertook to eliminate mutual exclusivity), CD Radio removed Loral from the field by entering into a spacecraft construction contract that contained an escalation clause under which the costs of construction increase every day after February 1993. To date, this escalation in cost -- caused primarily by broadcasters -- has made CD Radio's construction costs rise by more than \$20 million.

<sup>4</sup> A litany of productive applications for satellite DARS can be found in the Comments filed by consumer groups and special interest organizations in this proceeding.

<sup>5</sup> Comments of American Federation of Teachers at 1 (satellite DARS would have significant value by offering "a path to equity in education"); Comments of Professor David G. Gueulette at 1 (satellite DARS has the potential to expand the availability of educational programming).

<sup>6</sup> Comments of C-SPAN at 2 ("the public will benefit from new programming and service not otherwise available from local radio").

storm warnings for mountainous regions and coastal waterways,<sup>10</sup> agricultural reports,<sup>11</sup> and telethons to help needy children.<sup>12</sup> These applications could enhance people's lives, increase public safety, and help invigorate the economy. None of these benefits has been

---

<sup>7</sup> See Comments of Radio and Television Commission of the Southern Baptist Convention at 1; Comments of Office of Communications of the United Church of Christ et al. at 1; Comments of American Baptist Churches U.S.A. at 1; Comments of Professor Arthur Hertzberg, past national president of the American Jewish Congress at 1.

<sup>8</sup> See Comments of National Black Media Coalition at 1; Comments of Council for the National Interest at 1; Comments of Dialogue and Confluence at 1; Comments of Fiesta Italiana at 1; Comments of Cedric R. Hendricks at 1; Comments of Italian Industries Association; Comments of National Asian American Telecommunications Association at 1; Comments of New York Chinatown Senior Citizens Center, Inc. at 1; Comments of Voice of America at 1; Comments of Korean American TV of Washington at 1; Comments of Native American Public Broadcasting at 1; Comments of John Jung, Multi-Media Computer Communications, Inc. at 1; Comments of Black Awareness in Television at 1.

<sup>9</sup> See Comments of American Council for the Arts at 1 (satellite DARS could provide symphonies, operas, and other cultural programming to new and larger audiences and provide an outlet for less well known artists); Comments of Citizens for a Sound Economy Foundation at 1 (satellite DARS could significantly increase diversity in audio programming); Comments of KJAZZ Satellite Radio at 1 (satellite DARS could provide Jazz programming to currently unserved audiences); Comments of Wyoming Heritage Society at 1 (satellite DARS is needed because it can provide cultural advantages to rural residents).

<sup>10</sup> See Comments of USDA Forest Service National Weather Program at 1; see also Comments of NIALLE Enterprises, Inc. at 1 (satellite DARS could disseminate important weather information for small aircraft, campers, hikers, and people in rural areas); *see also* Comments of National Parks and Conservation Association at 1 (satellite DARS can benefit both employees and users of national parks); *see also* Comments of Winnebago-Itasca Association at 1; Comments of J Boats at 1; Comments of Sat Tech Systems at 1.

<sup>11</sup> See Comments of Maine Farm Bureau Association at 1; Comments of Wyoming Farm Bureau Federation at 1.

<sup>12</sup> See Comments of Children's Miracle Network at 1.

realized, however, principally because the National Association of Broadcasters ("NAB") has waged war against progress in order to protect its lucrative turf.

The breadth of the chasm between the public interest and NAB's self-interest can be illustrated with clarity by the nearly two hundred comments that were filed in response to the Commission's NPRM. The overwhelming majority of those comments can be separated into one of two categories. The first group includes a long list of religious,<sup>13</sup> educational,<sup>14</sup> cultural/ethnic,<sup>15</sup> governmental,<sup>16</sup> and consumer groups.<sup>17</sup> They include such dynamic

---

<sup>13</sup> See Radio and Television Commission of the Southern Baptist Convention; Office of Communications of the United Church of Christ et al.; American Baptist Churches U.S.A.; Professor Arthur Hertzberg, past national president of the American Jewish Congress at 1.

<sup>14</sup> See American Federation of Teachers; Professor David G. Gueulette; David Barbee, Learning Systems Architects; Comments of Dr. Drew Allbritten, American Association of Adult and Continuing Education; Comments of Joan Sebastian, American Council on Rural Special Education.

<sup>15</sup> See National Black Media Coalition; Council for the National Interest; Dialogue and Confluence; Fiesta Italiana; Cedric R. Hendricks; Italian Industries Association; National Asian American Telecommunications Association; New York Chinatown Senior Citizens Center, Inc.; Korean American TV of Washington; Comments of Native American Public Broadcasting; Comments of Foundation for the Advancement of Hispanic Americans.

<sup>16</sup> See Comments of USDA Forest Service National Weather Program; Comments of U.S. Department of Commerce, National Institute of Standards and Technology; Comments of Voice of America.

<sup>17</sup> See American Council for the Arts; Children's Miracle Network; Citizens for a Sound Economy Foundation; KJAZZ Satellite Radio; Comments of Minnesota Public Radio; Comments of Mixed Media Incorporated; Comments of Wyoming Heritage Society; Comments of All Pro Sports and Entertainment, Inc; Comments of National Parks and Conservation Association; Comments of American Family Society; Comments of Women in Communication; Comments of American Mothers, Inc.; Comments of Winnebago-Itasca Association; Comments of National Parks and Conservation Society; Comments of American Family Society.

and influential organizations as the National Black Media Coalition, the American Federation of Teachers, and the United Church of Christ. The comments confirm the benefits of satellite DARS -- including creation of high technology jobs -- and urge the Commission toward immediate action.

The second group of comments is noticeably absent any consumer groups; it is also unsupported by comments from educators, religious, cultural, or ethnic organizations. Instead, the second group consists virtually exclusively of NAB rank and file -- business owners engaged in a highly profitable exploitation of the airwaves. NAB and its members, most willing to commit little more than their letterhead and signature to strangely similar letters, argue for scant more than regulatory protection.

The Commission should ignore NAB's five year-long campaign for protectionism. Every day that NAB obstructs the approval of satellite DARS is a victory for its self-interests and a loss for the public. Consumers are calling for the immediate authorization of this innovative technology. The Communications Act obligates the Commission to heed these demands and move forward in the public interest.

Meanwhile, the surge in consumer interest has attracted a latecomer to the proceeding speculator hoping to slip past the Commission's filing deadline and get a license so it can profit from the efforts of CD Radio. This is understandable, now that so much has been accomplished and the final step is nearly in place. However, the FCC should not brook this sort of eleventh hour chicanery. Instead, the FCC should acknowledge the technological and regulatory efforts of CD Radio, and process the pending applications immediately.

Similarly, CD Radio urges the Commission to ignore the temptations of easy money by rejecting proposals to auction satellite DARS spectrum. Auctions would be an inappropriate and illegal method of distributing licenses in this proceeding. Auctions would also be harmful to the public, since they would lead to lengthy litigation which would further delay deployment and ultimately increase the cost of the service for consumers.<sup>18</sup>

Instead, the FCC must recognize the considerable reliance that CD Radio and its investors have placed over the past 13.5 red-tape years in the previous consistency of the agency's cut-off procedures, which have caused it to expend substantial sums on the continued development of the proposed systems and regulatory efforts. The funds for these expenditures principally have come from high-risk venture investors. These investments were premised upon substantial expected returns that on average are considerably higher than returns in other sectors: "the broad rule of thumb is to foresee the possibility of at least ten times their money in five years. [Venture capitalists] *will seek greater potential return in early stage companies that will require five to seven years to develop.*"<sup>19</sup> The FCC should adopt rules that maintain the well-founded expectations of the applicants and their investors.

In sum, both the public interest and equitable concerns argue for the immediate authorization of satellite DARS and the licensing of the current four satellite DARS

---

<sup>18</sup> See Citizens for a Sound Economy at 4 (auctions should not be used because they would not increase the speed and efficiency by which licenses are assigned).

<sup>19</sup>Morris, Venture Capital I: Industry Structure and Investment Strategy, *reprinted in* Robert Lawrence Kuhn, Capital Raising and Financial Structure at 361 (Dow Jones 1990) (emphasis added).

applicants. The Commission acknowledged in its *NPRM* that the four current applicants have "certain equities in [their] favor" in this proceeding.<sup>20</sup> Those equities can be adequately served only by the immediate authorization and licensing of this long-awaited service.

## **II. THE COMMISSION SHOULD NOT COUNTENANCE NAB'S ATTEMPT TO MISCHARACTERIZE AND DISTORT THE NEGLIGIBLE EFFECT OF NATIONWIDE SATELLITE DARS ON CONVENTIONAL RADIO**

The NAB's strategy in this proceeding seems to be to repeat the same argument over and over again hoping that someone will mistake recapitulation for reality. Following this tactic, NAB has drummed its rank and file into mailing more than one hundred highly repetitive, suspiciously similar letters demanding protection for their lucrative exploitation of the public airwaves. NAB has also submitted a collection of misleading, badly flawed, and anecdotal studies and surveys in order to argue a pair of contradictory positions. NAB claims terrestrial radio is satisfying all of the needs of consumers; and, yet, NAB also claims that terrestrial radio is critically ill and in desperate need of protection. As CD Radio will illustrate in detail, neither of these contradictory claims is true.

### **A. The FCC Should Reject NAB's Unconvincing Effort to Discredit the Plain Public Interest Benefits of Satellite DARS.**

NAB has not attempted to challenge most of the substantial benefits that satellite DARS will bring to the American public. Indeed, NAB could not do so and -- given the

---

<sup>20</sup> *NPRM*, ¶ 34.

support of National Public Radio ("NPR") for DARS<sup>21</sup> -- it is apparent that NAB does not speak for all broadcasters. Instead, NAB recites a litany of misleading statistics in order to argue that the American public does not need the benefits that satellite DARS will provide.

Satellite DARS will enhance the public interest by: (1) increasing the amount and availability of radio service in rural areas; (2) increasing diversity in radio programming in every community; (3) stimulating economic growth and creating high-income jobs; and (4) reinvigorating competition in the commercial audio communications industry. NAB concedes that satellite DARS will have the ability to provide all of the above-mentioned benefits to the American public. NAB contends, however, that consumers do not need the benefits and, in regard to diversity, that satellite DARS may not provide the benefit anticipated. As addressed below, there is no merit to this view.

#### **1. The Benefit of Enhanced Service to Rural Areas.**

Satellite DARS will greatly improve the amount and quality of audio services in rural areas. NAB does not dispute this reality, but instead argues that rural residents simply do not need any more radio.<sup>22</sup> NAB's claim rests on the misuse of data -- Arbitron county

---

<sup>21</sup> See also Minnesota Public Radio at 1 (satellite DARS can better serve rural and underserved metro audiences with general and niche programming); Comments of WPFW 89.3 FM at 1-2 (the public needs and wants satellite DARS and its deployment will foster technological development that will advance the terrestrial broadcast industry).

<sup>22</sup> NAB uses Arbitron survey lists to claim the average county is served by 14.9 radio signals and only a small fraction of U.S. counties are served by fewer than six stations. NAB at 40; see also NAB Attachment 3, *1995 Radio Station Availability by County Study*, Research and Planning Department National Association of Broadcasters, September 15,

survey lists -- that grossly overestimate the number of radio signals that the average person can receive.

Arbitron's county survey lists cannot be used to show the number of stations the average person can hear because the lists include every radio station to which a single Arbitron diary holder in a county tunes for as little as five minutes during a testing period. There are no controls in these studies to ensure that the lone diary holder in question does not own an above average receiver, nor resides in a distinct geographic location.<sup>23</sup> Furthermore, the same individual capable of receiving one non-local station may account for most, or all of, the aberrant signals in an Arbitron county list. As a result, Arbitron survey lists substantially overstate the number of stations that the average person is, or even a non-negligible minority of persons are, capable of receiving.<sup>24</sup> Of course, if the vast majority of listening demands were being met, then broadcasters would have little to fear from satellite DARS.

The comments filed in this proceeding -- a far more reliable indicator of radio signal availability -- are replete with consumer complaints that there is not enough radio available in

---

1995.

<sup>23</sup> A diary respondent could reside in a house on top of a hill or at an extreme corner of a county border near a metropolitan area. This is particularly true for nighttime coverage by high-powered AM stations.

<sup>24</sup> In many county "markets" the stations are divided between two or more communities -- with a few stations serving one community while other stations serve another community. Further, NAB's radio station totals include AM stations that do not have the signal quality needed to disseminate the level of high-quality audio programming that consumers desire and CD Radio can provide.



many areas.<sup>25</sup> NAB's refusal to acknowledge this surge of consumer dissatisfaction can only be rationalized in furtherance of a policy of protectionism.

## **2. The Benefit of Increased Diversity in Programming**

Satellite DARS will be capable of offering a broad selection of diverse programming. NAB argues that sufficient diversity already exists.<sup>26</sup> There are two flaws in NAB's position.

First, NAB's statistics prove that a tremendous disparity in program availability exists between smaller and larger communities. This fact buttresses the public interest rationale behind satellite DARS. NAB has not, and cannot, explain why the number of formats it has catalogued for each market is enough to supposedly satisfy listeners. For example, although it notes that Los Angeles listeners have access to 28 radio formats, NAB's comments list a total of only seven radio formats in New Bedford, Massachusetts; six in Waterbury,

---

<sup>25</sup> See Maine Farm Bureau Association at 1; Comments of American Association of Homes and Services for the Aging at 1; Comments of Owner-Operator Independent Drivers Association, at 1; Comments of Recreation Vehicle Dealers Association at 1; Comments of Recreational Vehicle Industry Association at 1; Comments of Wyoming Farm Bureau Federation at 1; Comments of Wyoming Heritage Soc. at 1; Comments of Winnebago-Itasca Travelers at 1.

Additionally, the significant percentage of listener diversion to "below the-line" stations recorded in Arbitron surveys is evidence of public dissatisfaction with the current quantity and variety of terrestrial stations. Comments of Primosphere Limited Partnership at Appendix 2 ("Primosphere").

<sup>26</sup> NAB at 42.

Connecticut; and seven in Frederick, Maryland.<sup>27</sup> NAB cannot justify why Waterbury's population should be satisfied with one-fifth as many radio formats as Los Angeles residents.<sup>28</sup>

When the Commission licenses satellite DARS, rural residents will enjoy just as many radio formats as listeners in the largest cities. Currently, the radio industry provides urban populations with, on average, more than 26 radio formats because larger markets have sufficient niche audiences to make a higher level of diversity possible. Licensing qualified satellite DARS applicants such as CD Radio will permit aggregation of radio listeners across the country and will improve diversity in even the largest markets.<sup>29</sup>

Second, NAB's radio format totals for each market appear incorrect and misleading. For example, NAB claims that 57 formats are available in Sioux Falls, South Dakota. On its

---

<sup>27</sup> See *An Analysis of The Number of Formats Offered in Arbitron Markets*, Research and Planning Dept. National Association of Broadcasters, Sept. 15, 1995, NAB Attachment 4.

<sup>28</sup> The additional diversity lacking in terrestrial radio outside major metropolitan areas is highly demanded. Most cultural or educational programming requires a relatively large minimum audience to be economically viable. Indeed, solely considering music formats, the music industry has changed over the years as it continues to "splinter into dozens of genres, ranging from pygmy-inspired dance music to Gregorian chants." Jefferey Trachtenberg, "Music Industry Fears Bandits on the Information Highway", *Wall Street Journal* at B1 (August 2, 1994). As an example of this narrowcasting, the music industry Grammy awards are now bestowed in 80 music categories, up from 28 when the awards began in 1958. See Karen O'Connor, "Grammy Adds 3 Categories; World Music Among New Awards", *Billboard* at 87 (1991); John Antczak, "Artists to Await Honors for Best Recordings of Past Year", *The Associated Press*, Feb. 21, 1990, available in LEXIS, News Library, AP File.

<sup>29</sup> Attached (as Appendix A) is the analysis of John L. Peterman, economist and former senior official with the FTC ("Peterman"). Mr. Peterman reviews the submissions of the NAB, and shows that a large majority of Americans get many fewer formats than the 26 formats, on average, available in the top 10 market. For example, the 18% of the population in markets 101-261 only receive, on average, just under 15 formats. Peterman at 27.

face, this is a remarkable feat of double counting since NAB elsewhere claims that only 27 stations are located in Sioux Falls.<sup>30</sup> Moreover, NAB admits that it counted the same radio stations multiple times, once for each of the different hour-or-so-long programs that they air.<sup>31</sup> This is patent nonsense: multiple counting is inappropriate and misleading because a single radio station is incapable of airing more than one format at a time. This is especially true in light of the fact that most of the *special ethnic formats aired on terrestrial radio are currently limited to between one and four hours per week*,<sup>32</sup> hardly enough to be described as satisfying a community need.<sup>33</sup>

### **3. The Benefit of Providing Specialized Niche Programming to National Audiences**

NAB acknowledges that satellite DARS will be able greatly to increase specialized niche programming through the nationwide aggregation of small audiences, but the association claims there is no need for more programming.<sup>34</sup> NAB's evidence is

---

<sup>30</sup> See *An Analysis of The Number of Radio Stations in Arbitron Markets*, Research and Planning Department National Association of Broadcasters, September 15, 1995, NAB Attachment 2. NAB also lists 12 radio stations and 42 radio formats in Waco, Texas; 16 stations and 38 formats in Lincoln, Nebraska; and 14 stations and 57 formats in Dubuque, Iowa. *Id.*

<sup>31</sup> See *id.* at 1.

<sup>32</sup> See discussion accompanying note 35 *infra*.

<sup>33</sup> Many listeners devoted to a particular format place substantial value on receiving that format any time they wish. See, e.g., KJAZZ Satellite Radio at 1.

<sup>34</sup> According to NAB, a "wide availability of *local* ethnic radio programming" exists in areas with substantial ethnic populations. NAB at 31 n.78.

unconvincing in several regards. First, most of NAB's version of local ethnic programming is not available anywhere near full-time. A third of the stations NAB lists as providing "special programming" to individual ethnic groups restrict the programming to one hour per week.<sup>35</sup> Additionally, more than half the stations that provide special ethnic programming limit the programming to less than three hours per week, less than 2% of the time.<sup>36</sup>

Second, those stations that do provide full-time ethnic programming are geographically limited. For example, the more than 400 radio stations that have full-time Spanish formats are largely centered in just a few regions: 107 of the stations with Spanish formats that NAB mentions operate in Puerto Rico. In contrast, CD Radio's niche programming formats will be available 24 hours a day nationwide.

NAB also argues that even if niche programming is needed, satellite DARS licensees may not follow through with their plans to provide such programming. On the contrary, satellite DARS will target niche audiences that can only be served on an aggregated, nationwide basis.<sup>37</sup> As noted in the opening Comments, CD Radio proposes, in addition to its 30 music channels, 20 channels for cultural, ethnic, educational and foreign language

---

<sup>35</sup> This limited air-time illustrates why one of the people who wrote a letter to the Commission in support for satellite DARS' immediate authorization was a producer of an Italian-American radio program that currently receives just one hour of Sunday afternoon air-time on a Sacramento, California radio station. *See* Comments of Fiesta Italiana at 1; *see also* Italian Industries Association. Another commenter noted the need for a radio station broadcasting in Hebrew. *See* Comments of Professor Arthur Hertzberg.

<sup>36</sup> *See* NAB Attachment 11.

<sup>37</sup> *See* Comments of NPR at 5-6 ("[T]he real promise of DARS technology is in the aggregation of niche markets of unserved and underserved audiences for the delivery of new audio services.").

programming.<sup>38</sup> Indeed, CD Radio has made affirmative efforts to seek out and engage in discussions with ethnic, educational, religious, and other special interest groups regarding the specialized programming satellite DARS can provide.

The confidence that these organizations have placed in CD Radio's intention to provide diverse programming is apparent in the outpouring of support that has been expressed in comments in this proceeding. These groups include the National Black Media Coalition and the National Asian American Telecommunications Association, both strong proponents of greater diversity in media. Other entities calling for the rapid authorization of satellite DARS include cultural and ethnic groups,<sup>39</sup> religious institutions,<sup>40</sup> and other

---

<sup>38</sup> See Comments of CD Radio at 8 n.13.

<sup>39</sup> See, e.g., Council for the National Interest at 1 (satellite DARS would make it possible to provide niche programming for non-English speaking ethnic groups); Comments of Dialogue and Confluence at 1 (satellite DARS would make it possible to provide niche programming for Vietnamese and other ethnic groups); Fiesta Italiana at 1 (satellite DARS would be a good vehicle to provide Italian-American programming to the twenty-five million Italian-Americans in the U.S.); Italian Industries Association at 1 (same); Cedric R. Hendricks at 1 (satellite DARS could provide new opportunities to distribute programming for minorities); New York Chinatown Senior Citizens Center, Inc. at 1 (a satellite DARS Chinese station would help bridge the information gap between Chinese communities and mainstream America); Korean American TV of Washington at 1 (satellite DARS could sustain nationwide programming for non-english speaking citizens).

<sup>40</sup> See Radio and Television Commission of the Southern Baptist Convention at 1 (satellite DARS could provide increased outlet for programming); Office of Communications of the United Church of Christ et al. at 1 (satellite DARS is in a unique position to serve minority ethnic and cultural interests that might otherwise remain unserved); American Baptist Churches U.S.A. at 1 (satellite DARS could become a vital method of communication for religious organizations); Professor Arthur Hertzberg, past national president of the American Jewish Congress at 1 (satellite DARS could be used to disseminate jewish culture and for teaching jewish history).

bodies that represent people with special needs.<sup>41</sup> The wealth of support for satellite DARS is an indication of not only the anticipation people have for CD Radio, but also the dissatisfaction they have with the lack of diversity currently provided by the terrestrial radio industry.

---

<sup>41</sup> See American Council for the Arts at 1 (satellite DARS could provide symphonies, operas, and other cultural programming to new and larger audiences and provide an outlet for less well known artists); American Federation of Teachers at 1 (satellite DARS would have significant value by offering "a path to equity in education"); Children's Miracle Network at 1 (satellite DARS could be used to convey the special needs of children); Citizens at 1 (satellite DARS could significantly increase diversity in audio programming); Professor David G. Gueulette at 1 (satellite DARS has the potential to expand the availability of educational programming); KJAZZ Satellite Radio at 1 (satellite DARS could provide Jazz programming to currently unserved audiences); Minnesota Public Radio at 1 (satellite DARS could deliver specialized, well-targeted non-commercial educational, public service programming to national audiences); Mixed Media Incorporated at 1 (satellite DARS can provide diverse programming to large audiences); Wyoming Heritage Society at 1 (satellite DARS is needed because it can provide cultural advantages to rural residents); All Pro Sports and Entertainment, Inc. at 1 (satellite DARS will make possible niche programming in sports and other entertainment fields); Comments of National Parks and Conservation Association at 1 (satellite DARS can provide environmental and educational programming in remote areas); Comments of United States Department of Commerce, National Institute of Standards and Technology at 1 (satellite DARS could provide nationwide dissemination of clock synchronization); Comments of American Family Society at 1 (satellite DARS could provide nationwide programming aimed at strengthening families); Comments of J. K. International, Inc. at 1 (satellite DARS could provide national wide closed caption programming for the hearing impaired and descriptive audio track programming for the vision impaired); Comments of American Mothers Inc. at 1 (satellite DARS could provide nationwide programming to educate and motivate families in positive practices which enhance family life).

#### **4. The Benefit of Stimulating Significant Economic Growth and Creating High-Skilled Jobs**

Satellite DARS will generate a significant boost in economic growth in the United States and will create new employment opportunities, predominately in high-paying, high-technological industries. The *NPRM* recognized that one of the benefits of satellite DARS is its potential to "lead to substantial investment in the U.S. economy."<sup>42</sup> This massive injection of investment and employment also is repeatedly acknowledged -- and uncontested -- in the comments filed in this proceeding.<sup>43</sup>

The burst in economic activity will be prompted, first, by the manufacture and deployment of satellite DARS systems and, second, by the manufacture and installation of

---

<sup>42</sup> As the Commission noted, the construction costs alone for the proposed space stations ranges from \$320 million to over \$622 million. The Commission also noted that many of the economic opportunities that will be created by satellite DARS will "be available to non-licensees, including small and minority owned businesses." *NPRM*, ¶ 5.

Strangely, however, NAB not only ignored the economic benefits of satellite DARS in its comments, it strangely omitted the Commission's reference to them. NAB purports in its comments to enumerate a complete list of the "benefits" that "[t]he Commission's Notice recites." NAB at 40. That list conspicuously omits economic growth and/or job creation.

<sup>43</sup> See Comments of Ball Corp., Ball Telecommunications Products Div. at 1; Comments of Consumer Electronics Group of the Electronic Industries Association at 1, Comments of ComStream Corp. at 1; Comments of Digital Satellite Broadcasting Corp. at 21 ("DSBC"); Comments of The George Washington University Institute for Applied Science Research at 1; Comments of IOTEX Communications, Inc. at 1; Comments of The Institute of Electrical and Electronic Engineers, United States Activities Board at 1; Comments of Seavey Engineering Association at 1; Comments of Orbital Sciences Corp. at 1; Comments of Space System/Loral at 1.

satellite DARS receivers for consumers.<sup>44</sup> The technological advances that will accompany Satellite DARS' deployment will also enable new innovations and growth in other high-technology fields.<sup>45</sup> Industry leaders are urging the Commission to act quickly and immediately authorize satellite DARS. This is because much of the expected economic growth will not be realized if the United States engages in delay and loses its narrowly-held leadership position in the international space-technology marketplace.<sup>46</sup>

---

<sup>44</sup> See Consumer Electronics Group of the Electronic Industries Association at 1, 5; Orbital Sciences Corp. at 1 (employment will be created in numerous sectors of the economy, particularly in receiver manufacturing). Many of the new jobs will go to industries and geographical regions that have been hit hard by recent job layoffs. See Digital Satellite Broadcasting Corp. at 21 (the more than one billion dollars of satellite construction proposed by applicants will replace a diminishing defense contracting industry); Seavey Engineering Association at 1 (satellite DARS will create jobs, particularly in the depressed New England states). New opportunities will also be created for people in the programming industry at a time when radio has been reducing employment. See Digital Satellite Broadcasting Corp. at 21; Orbital Sciences Corp. at 1; Space System/Loral at 1 (satellite DARS will create jobs and help industry); National Black Media Coalition (satellite DARS will provide a vehicle for talented entertainers and performers currently not carried on terrestrial radio).

<sup>45</sup> See The George Washington University Institute for Applied Science Research at 1 (knowledge gained through the development of satellite DARS will contribute to other fields and advance the U.S. technology base); IOTEX Communications, Inc. at 1 (deployment of satellite DARS will promote advances in compression technology which will allow greatly expanded use of the radio frequency spectrum); The Institute of Electrical and Electronic Engineers, United States Activities Board at 1 (satellite DARS will contribute to the U.S. technology base and will assist other domestic industries); Comments of Sat Tech Systems, Inc. at 1 (satellite DARS will also be suitable for providing correction data for GPS, and traffic and emergency data).

<sup>46</sup> See Ball Corp., Ball Telecommunications Products Div. at 1 (a tremendous number of new jobs depends on the immediate authorization of satellite DARS so that the United States' ability to maintain leadership in the development of satellite DARS); ComStream Corp. at 1 (delays in the deployment of satellite DARS will cost the United States jobs and money); Digital Satellite Broadcasting Corp. at 21 (arguing that the U.S. is "undeniably" already in a "catch-up" position); IOTEX Communications, Inc. at 1 (the United States must remain a



## **5. The Benefit of Reinvigorated Competition in Radio Broadcasting**

Not surprisingly, NAB does not dispute the claim that satellite DARS can -- and already has -- reinvigorated competition in broadcast radio. Since CD Radio filed its application with the FCC more than five years ago, terrestrial broadcasters have redoubled their efforts to convert from analog to digital. Implementation of terrestrial digital service now is well on its way, and will be in place long before DARS begins. Given the increased competitiveness that the mere prospect of satellite DARS has already injected into terrestrial radio, one can only look with enthusiasm towards the competitive improvements the radio industry is likely to undergo once satellite DARS is deployed.

### **B. Contrary to the Claims of Broadcasters, Satellite DARS Will Not Harm Traditional Broadcasting**

CD Radio's predictions of the appearance of "Chicken Little" in this docket proved accurate: the NAB, and some of its members, claim the sky will fall if the Commission authorizes satellite DARS. However, the broadcasters' "competitive" arguments are utterly unpersuasive. In particular, NAB's studies and models are inconclusive, contradicted by their own experts, and are simply false. But, perhaps most importantly, the broadcasters'

---

leader in the communications industry); The Institute of Electrical and Electronic Engineers, United States Activities Board at 1 (satellite DARS will improve this country's ability to compete internationally); Orbital Sciences Corp. at 1 (satellite DARS will help ensure that the U.S. satellite industry remains a world leader); Seavey Engineering Association at 1 (delays will cost this country its position of world leadership in the industry and, with it, money); Space System/Loral at 1 (if there is much more delay in satellite DARS' deployment, Europe will take over the leadership position in the industry).